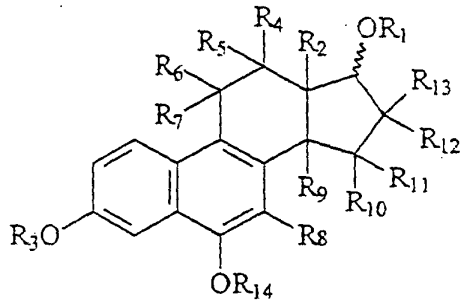
THAT WHICH IS CLAIMED:

1. A compound represented by Formula I:



I

wherein:

the bond represented by the wavy line may be a single or double bond such that when the wavy line is a single bond, R_1 is selected from the group consisting of hydrogen, sulfate and glucroronate or other esters, and when the wavy line is a double bond, R_1 does not exist;

R_2 is lower alkyl;

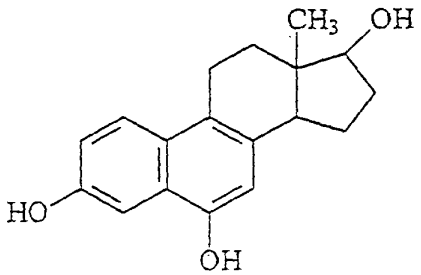
R_3 is selected from the group consisting of hydrogen, sulfate, and glucuronide or other esters;

R_4 through R_{13} are independently selected from the group consisting of hydrogen, hydroxy, ketone, lower alkyl, lower alkoxy, halogen, and carbonyl groups; and

R_{14} is selected from the group consisting of hydrogen, sulfate and glucoronide or other esters;

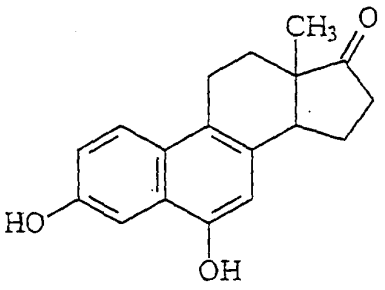
said compound being present in chemically pure form.

2. The compound according to Claim 1, wherein said compound is of Formula II:



II

3. The compound according to Claim 1, wherein said compound is of Formula III:



III

4. The compound according to Claim 1, wherein said compound is greater than about 95% pure.

5. The compound according to Claim 1, wherein R_2 is C_1 to C_4 alkyl, R_4-R_{12} are hydrogen and R_{13} is hydrogen or ethynyl.

6. The compound according to Claim 1, wherein when R_1 is hydroxy, the compound has a ß orientation.

7. The compound according to Claim 1 in conjugated form.

8. The compound according to Claim 1 having the following physicochemical properties:

molecular formula of $C_{18}H_{19}O_6S$;

^{1}H-NMR spectrum as shown in Figure 6; and

^{13}C-NMR spectrum as shown in Figure 12.

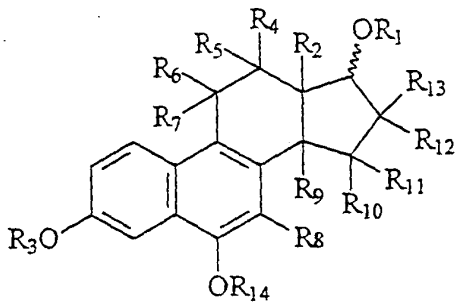
9. The compound according to Claim 1 having the following physicochemical properties:

molecular formula of $C_{18}H_{17}O_6S$;

^{1}H-NMR spectrum as shown in Figure 27; and

^{13}C-NMR spectrum as shown in Figure 33.

10. A pharmaceutical composition incorporating a compound represented by Formula I:



I

wherein:

the bond represented by the wavy line may be a single or double bond such that when the wavy line is a single bond, R_1 is selected from the group consisting of hydrogen, sulfate and glucoronate and other esters, and when the wavy line is a double bond, R_1 does not exist;

R_2 is lower alkyl;

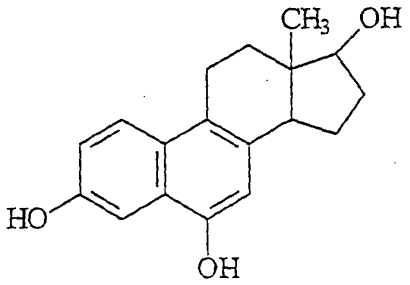
R_3 is selected from the group consisting of hydrogen, sulfate, and glucuronide or other esters;

R_4 through R_{13} are independently selected from the group consisting of hydrogen, hydroxy, ketone, lower alkyl, lower alkoxy, halogen, and carbonyl groups; and

R_{14} is selected from the group consisting of hydrogen, sulfate and glucoronide and other esters;

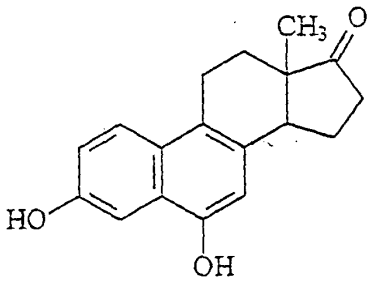
said compound being present in chemically pure form.

11. The pharmaceutical composition according to Claim 10, wherein said compound is of Formula II:



II

12. The pharmaceutical composition according to Claim 10, wherein said compound is of Formula III:



III

13. The pharmaceutical composition according to Claim 10, wherein said compound is greater than about 95% pure.

14. The pharmaceutical composition according to Claim 10, wherein R_2 is C_1 to C_4 alkyl, R_4-R_{12} are hydrogen and R_{13} is hydrogen or ethynyl.

15. The pharmaceutical composition according to Claim 10, wherein when R_1 is hydroxy, the compound has a ß orientation.

16. The pharmaceutical composition according to Claim 10, wherein said compound is in conjugated form.

17. The pharmaceutical composition according to Claim 10, wherein the composition further comprises at least one additional pharmaceutically active ingredient.

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18. The pharmaceutical composition according to Claim 17, wherein the at least one additional pharmaceutically active ingredient is selected from the group consisting of estrogenic compounds, androgenic compounds, progestin compounds, vasodilation agents, calcium salts, and vitamin D and its derivatives, and mixtures and

60 combinations thereof.

19. The pharmaceutical composition according to Claim 10, wherein said compound has the following physicochemical properties:

molecular formula of $C_{18}H_{19}O_6S$;

^{1}H-NMR spectrum as shown in Figure 6; and

^{13}C-NMR spectrum as shown in Figure 12.

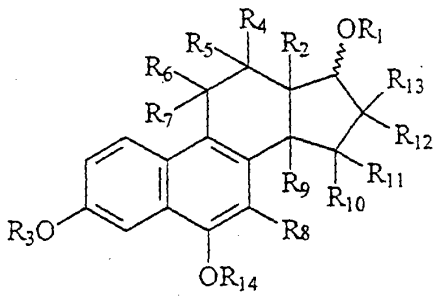
20. The pharmaceutical composition according to Claim 10, wherein said compound has the following physicochemical properties:

molecular formula of $C_{18}H_{17}O_6S$;

^{1}H-NMR spectrum as shown in Figure 27; and

^{13}C-NMR spectrum as shown in Figure 33.

21. A method of treating mammals in need of treatment, said method comprising administering an effective amount of a compound represented by Formula I:



I

wherein:

the bond represented by the wavy line may be a single or double bond such that when the wavy line is a single bond, R_1 is selected from the group consisting of hydrogen, sulfate and glucoronate or other esters, and when the wavy line is a double bond, R_1 does not exist;

R_2 is lower alkyl;

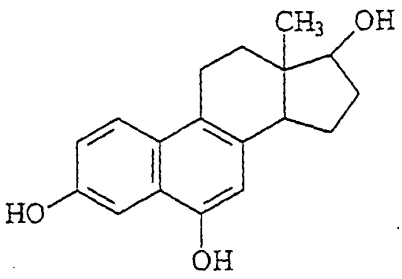
R_3 is selected from the group consisting of hydrogen, sulfate, and glucuronide or other esters;

R_4 through R_{13} are independently selected from the group consisting of hydrogen, hydroxy, ketone, lower alkyl, lower alkoxy, halogen, and carbonyl groups; and

R_{14} is selected from the group consisting of hydrogen, sulfate and glucoronide and other esters;

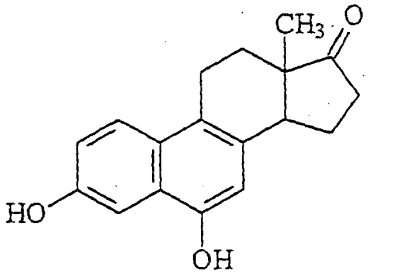
said compound being present in chemically pure form.

22. The method according to Claim 21, wherein said compound is of Formula II:



II

23. The method according to Claim 21, wherein said compound is of Formula III:



III

24. The method according to Claim 21, wherein said compound is greater than about 95% pure.

25. The method according to Claim 21, wherein R_2 is C_1 to C_4 alkyl, R_4-R_{12} are hydrogen and R_{13} is hydrogen or ethynyl.

26. The method according to Claim 21, wherein when R_1 is hydroxy, the compound has a ß orientation.

27. The method according to Claim 21, wherein said compound is in conjugated form.

28. The method according to Claim 21, wherein said compound is administered as part of a pharmaceutical composition, said composition further comprising at least one additional pharmaceutically active ingredient.

29. The method according to Claim 28, wherein the at least one additional pharmaceutically active ingredient is selected from the group consisting of estrogenic compounds, androgenic compounds, progestin compounds, vasodilation agents, calcium salts, and vitamin D and its derivatives, and mixtures and combinations thereof.

30. The method according to Claim 21, wherein said compound has the following physicochemical properties:

molecular formula of $C_{18}H_{19}O_6S$;

^{1}H-NMR spectrum as shown in Figure 6; and

^{13}C-NMR spectrum as shown in Figure 12.

31. The method according to Claim 21, wherein said compound has the following physicochemical properties:

molecular formula of $C_{18}H_{17}O_6S$;

^{1}H-NMR spectrum as shown in Figure 27; and

^{13}C-NMR spectrum as shown in Figure 33.